



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2018-0189; Product Identifier 2017-CE-022-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; Viking Air Limited Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for Viking Air Limited Model DHC-3 airplanes. This proposed AD results from mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as pitting corrosion on the shank of the wing strut attach bolts. We are issuing this proposed AD to require actions to address the unsafe condition on these products.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE, Washington, DC 20590.

- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Viking Air Limited Technical Support, 1959 De Havilland Way, Sidney, British Columbia, Canada, V8L 5V5; telephone: (North America) (800) 663-8444; fax: (250) 656-0673; email: technical.support@vikingair.com; Internet: <http://www.vikingair.com/support/service-bulletins>. You may review this referenced service information at the FAA, Policy and Innovation Division, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

#### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0189; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Aziz Ahmed, Aerospace Engineer, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone: (516) 287-7329; fax: (516) 794-5531; email: [aziz.ahmed@faa.gov](mailto:aziz.ahmed@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2018-0189; Product Identifier 2017-CE-022-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

### **Discussion**

Transport Canada, which is the aviation authority for Canada, has issued AD Number CF-2017-11, dated March 9, 2017 (referred to after this as “the MCAI”), to correct an unsafe condition for Viking Air Limited Model DHC-3 airplanes and was based on mandatory continuing airworthiness information originated by an aviation authority of another country. The MCAI states:

Pitting corrosion has been found on the shank of the following part number wing strut attach bolts: C3W114-3, C3W129-3 and C3W128-3. These bolts are manufactured using a standard AN12 bolt. Metallurgical evaluation concluded that pitting corrosion was present on the affected AN12 bolts prior to forming of the bolt head and threads. The pitting and un-plated voids could cause a surface condition that may have a detrimental effect on fatigue and corrosion resistance, leading to bolt failure and consequent failure of the wing.

Viking has not been able to confirm the affected batch numbers or specific manufacture date range. New wing strut bolts manufactured after 21 March 2016 are inspected for pitting during manufacturing and issued new P/Ns C3W114-5, C3W129-5 and C3W128-5 under MOD 3/1010.

You may examine the MCAI on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0189.

### **Related Service Information under 1 CFR part 51**

Viking Air Limited has issued DHC-3 Otter Service Bulletin Number V3/0006, Revision B, dated March 9, 2017. The service information describes procedures for inspection and any necessary corrective action for pitting of the wing strut shank bolts. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section of this NPRM.

### **FAA's Determination and Requirements of the Proposed AD**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with this State of Design Authority, they have notified us of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all information and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design.

### **Costs of Compliance**

We estimate that this proposed AD will affect 37 products of U.S. registry. We also estimate that it would take about 4 work-hours per product to comply with the basic requirements of this proposed AD. The average labor rate is \$85 per work-hour.

Based on these figures, we estimate the cost of the proposed AD on U.S. operators to be \$12,580, or \$340 per product.

In addition, Table 1 is an estimate of possible necessary follow-on actions as a result of the required inspections. We have no way of determining the number of products that may need these actions. We estimate that any necessary follow-on replacement parts would cost as follows:

Replacing each affected bolt is on condition and is estimated to take about 1 work-hour at \$85 for a cost of \$85 per bolt.

**Table 1 – Parts Replacement and Total Bolt Cost**

<b>Part #</b>	<b>Quantity per wing</b>	<b>Quantity per airplane</b>	<b>Price per bolt (\$ USD)</b>	<b>Total Cost per bolt (labor and parts)</b>
C3W114-5	2	4	\$284	\$369
C3W128-5	1	2	\$275	\$360
C3W129-5	1	2	\$164	\$249

**Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. “Subtitle VII: Aviation Programs,” describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to small airplanes and domestic business jet transport airplanes to the Director of the Policy and Innovation Division.

## **Regulatory Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

## **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new AD:

**Viking Air Limited:** Docket No. FAA-2018-0189; Product Identifier 2017-CE-022-AD.

#### **(a) Comments Due Date**

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

#### **(c) Applicability**

This AD applies to Viking Air Limited Model DHC-3 airplanes with wing strut bolts wing strut bolts part numbers (P/N) C3W114-3, C3W129-3 and C3W128-3 (Pre MOD 3/1010), all serial numbers, certificated in any category.

#### **(d) Subject**

Air Transport Association of America (ATA) Code 57: Wings.

#### **(e) Reason**

This AD was prompted by from mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as pitting corrosion on the shank of the wing strut attach bolts. We are issuing this proposed AD to detect and correct pitting and un-plated voids, which could cause a surface condition that may have a detrimental effect on fatigue and corrosion resistance, leading to bolt failure and subsequent failure of the wing.

**(f) Actions and Compliance**

Unless already done, do the following actions:

(1) Within the next 12 months after the effective date of this AD, inspect the wing strut attach bolts installed on the airplane for pitting on the shank following paragraph A of the Accomplishment Instructions of Viking DHC-3 Otter Service Bulletin (SB) Number: V3/0006, Revision B, dated March 9, 2017.

(2) If pitting is found after the inspection required in paragraph (f)(1) of this AD, before further flight, replace the bolt with either a post MOD 3/1010 wing strut bolt (Part Numbers (P/Ns) C3W114-5, C3W129-5 or C3W128-5 as applicable) or a new or serviceable pre MOD 3/1010 wing strut bolt that has been inspected following paragraph A of Viking DHC-3 Otter SB Number: V3/0006, Revision B, dated March 9, 2017.

(3) After the effective date of this AD, pre MOD 3/1010 bolts may continue to be used provided these bolts are inspected for pitting immediately before installation following paragraph A of the Accomplishment Instructions of Viking DHC-3 Otter SB Number: V3/0006, Revision B, dated March 9, 2017, and the accomplishment of the inspection must be documented in the airplane maintenance records.

**(g) Credit for Actions Accomplished in Accordance with Previous Service Information**

This AD allows credit for the actions required in paragraph (f)(1) or (2) of this AD if done before the effective date of this AD following SB Viking DHC-3 Otter V3/0006 Revision NC or A.



**(h) Other FAA AD Provisions**

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Aziz Ahmed, Aerospace Engineer, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone: (516) 287-7329; fax: (516) 794-5531; email: [aziz.ahmed@faa.gov](mailto:aziz.ahmed@faa.gov). Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, New York ACO Branch, FAA; or Transport Canada; or Viking Air Limited's Transport Canada Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

**(i) Related Information**

Refer to MCAI Transport Canada AD Number CF-2017-11, dated March 9, 2017, for related information. You may examine the MCAI on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0189. For service information related to this AD, contact Viking Air Limited Technical Support, 1959 De Havilland Way, Sidney, British Columbia, Canada, V8L 5V5; telephone: (North America) (800) 663-8444; fax: (250) 656-0673; email: [technical.support@vikingair.com](mailto:technical.support@vikingair.com); Internet: <http://www.vikingair.com/support/service->

bulletins. You may review this referenced service information at the FAA, Policy and Innovation Division, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

Issued in Kansas City, Missouri, on March 6, 2018.

Pat Mullen,  
Acting Deputy Director, Policy & Innovation Division,  
Aircraft Certification Service

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